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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,517	07/31/2001	Takahiro Okada	P/1071-1422	3623

7590 07/03/2002

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EXAMINER

CHO, JAMES HYONCHOL

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/919,517

Applicant(s)

OKADA ET AL.

Examiner

James H. Cho

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 July 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Objections***

Claims 2 and 3 are objected to because of the following informalities:

"A dielectric filter" in line 1 of claims 2 and 3 appears to be --The dielectric filter--.  
Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over McVeety et al. (US PAT 5,721,520) in view of Hino (US PAT 5,949,308).

Regarding claim 1, Figs. 6 and 7 of McVeety et al. discloses a dielectric filter comprising a substantially rectangular parallelepiped dielectric block having a plurality of inner-conductor-formed holes (three resonators) arranged therein, inner conductors disposed on the inner surface of the holes, a coupling electrode (602) formed on an

Art Unit: 2819

outer surface of the dielectric block and extended at least to an edge of the dielectric block at which an opening surface of the dielectric block containing open ends of the inner-conductor-formed holes joins a side surface of the dielectric block which is arranged parallel to a direction in which the holes are aligned (602 is parallel to the resonators and extended to the edge of the top surface), the coupling electrode being connected to the inner conductors (602 is capacitively connected to the resonators), the coupling electrodes generating a capacitance therebetween so as to couple the inner conductors, and an outer conductor arranged on outer surfaces of the dielectric block (col. 3, lns 1-11), but does not disclose the coupling electrode being more than one.

However, Fig. 3 of Hino discloses the coupling electrode being more than one (13a and 13b) for the purpose of providing optimizing the frequency bandwidth by regulating the width of the gap between two coupling electrodes.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to construct the dielectric filter of McVeety et al. with two coupling electrodes of Hino because it would provide optimal frequency bandwidth.

Regarding claim 2, Fig. 6 of McVeety et al. discloses the coupling electrode further extended onto the side surface of the dielectric block (602 positioned from the edge of the top surface to the side surface).

Regarding claim 3, Fig. 7 of McVeety et al. discloses input/output electrodes (34 and 38) arranged on a second side surface opposing the side surface opposing the side

Art Unit: 2819

surface and extending from a second edge, opposing the edge to generate capacitance between the open end portions of the inner conductors and the input/output electrodes (Fig. 6 is a rear perspective view while Fig. 7 is a front perspective view).

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McVeety et al. (US PAT 5,721,520) as modified by Hino (US PAT 5,949,308) as applied to claims 1-3 as discussed above, and further in view of Tsukamoto et al. (US PAT. 6,351,198). The teachings of McVeety et al. as modified by Hino have been discussed above.

Regarding claims 4-6, McVeety et al. as modified by Hino does not teach or fairly suggest a dielectric duplexer comprising a pair of the dielectric filters according to claim 3, a communication apparatus comprising a high-frequency circuit connected to the dielectric filter according to one of claims 1 and 2, or a communication apparatus comprising a high-frequency circuit connected to the dielectric duplexer according to claim 4. However, Fig. 5 of Tsukamoto et al. shows and teaches the use of the dielectric filter in a communication apparatus as a duplexer with a high frequency circuit for the purpose of designing a communication device. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to construct a communication apparatus having the dielectric duplexer of Tsukamoto et al. with a dielectric filter of McVeety et al as modified by Hino because it is mere intended use of a dielectric filter. It has been held that a recitation directed to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed

Art Unit: 2819

apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tsujiguchi et al. (US PAT 5,905,420) discloses a dielectric filter.

Tada et al. (US PAT 5,793,267) discloses a dielectric block filter having first and second resonator arrays coupled together.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Cho whose telephone number is 703-306-5442. The examiner can normally be reached on Monday-Friday, 05:30am-02:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 703-305-3493. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-0142 for regular communications and 703-308-0142 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

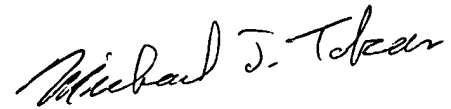
Application/Control Number: 09/919,517

Page 6

Art Unit: 2819

JHC

June 20, 2002

A handwritten signature in black ink, reading "Michael J. Tokar". The signature is written in a cursive, flowing style.

Michael Tokar  
Supervisory Patent Examiner  
Technology Center 2800